

REMARKS

This is a full and timely response to the non-final Office Action dated May 9, 2007. Reexamination, reconsideration, and allowance of the application and all presently pending claims are respectfully requested.

Upon entry of this paper, claims 1-31 are pending in this application. Claims 1-8, 11, 13-15, 18, 20, and 24-28 are directly amended herein and claim 23 is cancelled. Further, claims 29-31 are newly added. It is believed that the foregoing amendments add no new matter to the present application.

Response to 35 U.S.C. § 103 Rejections

In order for a claim to be properly rejected under 35 U.S.C. § 103, the combined teachings of the prior art references must suggest all features of the claimed invention to one of ordinary skill in the art. See, e.g., *In re Dow Chemical*, 5 U.S.P.Q.2d 1429, 1531 (Fed. Cir. 1988), and *In re Keller*, 208

Claim 1

Claim 1 presently stands rejected under 35 U.S.C. § 103 as unpatentable over *Aiello et al.* (U.S. Pub. No. 2005/0276255) in view of *Bilgic* (U.S. Patent No. 6,256,492). Amended claim 1 reads as follows:

1. A method for deterministic registration for communication networks comprising:

transmitting a node register command over a network, the node register command comprising a plurality of bits, the plurality of bits addressing a range of potential nodes;

determining, by a particular node and based upon the plurality of bits, whether the particular node corresponds to the range of potential nodes;

determining, by the particular node and based upon the plurality of bits and an identifier of the particular node, a corresponding time delay;

listening to the network for a response from a node in the range of nodes;

determining, based upon the time slot delay in which the response is received, the particular node in the range of nodes from which the response was received; and

responsive to detecting the response, registering the node.
(Emphasis Added).

Applicant respectfully asserts that *Aiello* in combination with *Bilgie* is inadequate to render pending amended claim 1 obvious. In particular, the combination fails to suggest or teach at least the features of claim 1 highlighted hereinabove.

Specifically, *Aiello* teaches a “TDMA frame definition 58” that “comprises a master slot 60, a command slot 62 and a plurality of data slots 64a through 64n.” See *Aiello*, paragraph [0071]. Notably, “The master slot 60 contains a synchronizing beacon or ‘master sync’”, “[t]he command slot 62 contains protocol messages exchanged between the transceiver devices of the network,” and “each of the data slots 64a through 64n provides data transmission time for a corresponding slave device 14a through 14n.” See *Aiello*, paragraph [0071]. It appears that the Office Action is identifying the “data slots 64a through 64n” as bits addressing a range of nodes. Applicant respectfully traverses such assertion. In this regard, the data slots, as taken from

Aiello, comprise “protocol messages exchanged between the transceiver devices of the network,” as identified hereinabove.

Furthermore, *Aiello* goes on to point out that “each data slot *assigned* is structured and configured to have a variable width and *is dynamically assigned by the master device*.” See *Aiello*, paragraph [0071] (emphasis added). Thus, inherently, the master device knows of the existence of the slave devices 14a-14n in the network.

Furthermore, *Bilgic* also teaches a system wherein the existence of the slave devices is known in order to fulfill the communication protocol prerequisites. In this regard, *Bilgic* teaches a system wherein the “[t]ime frame 201 may be thought of as a ‘polling loop’ or a time loop...whereby stations 102 are communicated with sequentially over the time frame 201...each transmitting and receiving messages in a *designated* time slot 202.” See, *Bilgic* column 5, lines 10-15 (emphasis added). Thus, inherently, the master device knows of the existence of the slave devices in the network and configures the “polling loop” accordingly.

Pivotaly, nowhere does *Aiello* or *Bilgic* teach “a plurality of bits...addressing a range of potential nodes...” in a “node register command” as claimed in claim 1. Furthermore, nowhere does *Aiello* or *Bilgic* teach “determining, by a particular node and based upon the plurality of bits, whether the particular node corresponds to the range of potential nodes,” as claimed in claim 1. In this regard, in both *Aiello* and *Bilgic*, the nodes are known to the master device and the master device determines the time slot for any slave device communicating with the master device.

Accordingly, *Aiello*, *Bilgic*, or a combination thereof does not teach or suggest all features of the claimed invention to one of ordinary skill in the art the method claimed in claim 1. Therefore, the 35 U.S.C. §103 rejection of claim should be withdrawn for at least is reason.

Claims 2-7 and 29

Claims 4 and 6 presently stand rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic*. Further, claims 2, 3, and 7 presently stand rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic* and in further view of Padovani et al. (U.S. Pat. No.: 6,574,211), and claim 5 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic* and in further view of Gehring et al. (Pub. No.: 2004/0090983). Additionally, claim 29 is newly added.

Applicant submits that the pending dependent claims 2-7 and 39 contain all features of their respective independent claim 1. Because amended claim 1 should be allowed as argued hereinabove, pending dependent claims 2-7 and 39 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Furthermore, these dependent claims recite patentably distinct features and/or combinations of features that make them allowable, notwithstanding the allowable status of their base claim 1.

Claim 8

Claim 8 presently stands rejected under 35 U.S.C. § 103 as unpatentable over *Aiello* in view of *Bilgic*. Amended claim 8 reads as follows:

8. A method for registering during a deterministic registration process comprising:

at a node, receiving a node register command addressing a range of nodes;

determining whether the node is in the range of addressed nodes;

responsive to determining that the node is in the range of addressed nodes, determining the proper time slot delay, based upon the addressed range of nodes and the node's serial number, and waiting for the determined time slot delay; and

transmitting a message during the proper time slot delay, the message being a response to the node register command. (Emphasis Added).

Applicant respectfully asserts that *Aiello* in combination with *Bilgic* is inadequate to render pending amended claim 1 obvious for at least those arguments made hereinabove with respect to claim 1. Accordingly, Applicant respectfully requests that the outstanding 35 U.S.C. § 103 rejection be withdrawn.

Claims 9-12, 30 and 31

Claims 9-12 presently stand rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic*. Additionally, claims 30 and 31 are newly added. Applicant submits that the pending dependent claims 9-12, 30 and 31 contain all features of their respective independent claim 8. Because amended claim 8 should be allowed as argued hereinabove, pending dependent claims 9-12, 30 and 31 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Furthermore, these dependent claims recite patentably distinct features and/or combinations of features that make them allowable, notwithstanding the allowable status of their base claim 8.

Claim 13

Claim 13 presently stands rejected under 35 U.S.C. § 103 as unpatentable over *Aiello* in view of *Bilgic*. Amended claim 13 reads as follows:

13. A computer-readable storage medium having stored thereon computer instructions that, when executed by a computer, cause the computer to:

transmit a node register command over a network, the node register command comprising a plurality of bits indicating a range of nodes, wherein the existence of each of the nodes in the range of nodes is unknown to a device transmitting the node register command;

listen during each of a plurality of time slot delays for a response message, each of the plurality of time slot delays designated for one of the range of nodes, the response message comprising an identifier identifying the responding node;

associating the identifier identifying the responding node with one of the nodes in the range of nodes, based upon the time slot delay in which the response message was received; and

responsive to detecting the response message, registering the node and its associated identifier.

Applicant respectfully asserts that *Aiello* in combination with *Bilgic* is inadequate to render pending amended claim 13 obvious for at least those arguments made hereinabove with respect to claim 1. Accordingly, Applicant respectfully requests that the outstanding 35 U.S.C. § 103 rejection be withdrawn.

Claims 14-17

Claim 15 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic*. Claims 14, 16 and 17 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic* and in further view of *Padovani*. Applicant submits that the pending dependent claims 14-17 contain all features of their respective independent claim 13. Because amended claim 13 should be allowed as argued hereinabove, pending dependent claims 14-17

should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Furthermore, dependent claims 14-17 recite patentably distinct features and/or combinations of features that make them allowable, notwithstanding the allowable status of their base claim 13.

Claim 18

Claim 18 presently stands rejected under 35 U.S.C. § 103 as unpatentable over *Aiello* in view of *Bilgic*. Amended claim 13 reads as follows:

18. A computer-readable storage medium having stored thereon computer instructions that, when executed by a computer, cause the computer to:

receive a node register command addressing a range of nodes;

determine whether to respond to the node register command, based upon a responding node's inclusion in the range of nodes addressed; and

responsive to determining to respond to the node register command, transmit a message during a time slot delay calculated based upon the responding node's location in the range of nodes and an identifier associated with the node. (Emphasis added).

Applicant respectfully asserts that *Aiello* in combination with *Bilgic* is inadequate to render pending amended claim 18 obvious for at least those arguments made hereinabove with respect to claim 1. Accordingly, Applicant respectfully requests that the outstanding 35 U.S.C. § 103 rejection be withdrawn.

Claims 19-22

Claim 15 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic*. Applicant submits that the pending dependent claims 19-22 contain all features of their respective independent claim 18. Because amended claim 18 should be allowed as argued hereinabove, pending dependent claims 19-22 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Furthermore, dependent claims 19-22 recite patentably distinct features and/or combinations of features that make them allowable, notwithstanding the allowable status of their base claim 18.

Claim 24

Claim 24 presently stands rejected under 35 U.S.C. § 103 as unpatentable over *Aiello* in view of *Bilgic*. Amended claim 24 reads as follows:

24. A system for deterministic registration for communication networks comprising:

means for transmitting a node register command over a network, the node register command identifying a range of nodes;

means for determining, based upon the range of nodes and a node identifier, whether the node is within the range and a corresponding time slot delay for sending a response message;

means for detecting a transmission of the response message during the time slot delay;

means for determining the responding node based upon the time slot delay in which the message is received and the range of nodes, the responding node being one of identified nodes; and

means for designating the responding node as registered.
(Emphasis added).

Applicant respectfully asserts that *Aiello* in combination with *Bilgic* is inadequate to render pending amended claim 24 obvious for at least those arguments made hereinabove with respect to claim 1. Accordingly, Applicant respectfully requests that the outstanding 35 U.S.C. § 103 rejection be withdrawn.

Claims 25 and 26

Claim 25 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic*, and claim 26 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic* in further view of Gehring. Applicant submits that the pending dependent claims 25 and 26 contain all features of their respective independent claim 24. Because amended claim 24 should be allowed as argued hereinabove, pending dependent claims 25 and 26 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Furthermore, dependent claims 25 and 26 recite patentably distinct features and/or combinations of features that make them allowable, notwithstanding the allowable status of their base claim 24.

27. A system for registering during a deterministic registration process comprising:

means for receiving a node register command, the node register command addresses a plurality of nodes;

means for determining whether to respond to the node register command;

means for calculating a time slot delay corresponding to a particular node based upon the plurality of nodes addressed and the particular node's serial number; and

means for transmitting a message during the calculated time slot delay in response to determining to respond to the node register command, the message being a response to the node register command. (Emphasis added).

Applicant respectfully asserts that *Aiello* in combination with *Bilgic* is inadequate to render pending amended claim 27 obvious for at least those arguments made hereinabove with respect to claim 1. Accordingly, Applicant respectfully requests that the outstanding 35 U.S.C. § 103 rejection be withdrawn.

Claims 28

Claim 28 presently stands rejected in the outstanding Office Action under 35 U.S.C. § 103 as being unpatentable over *Aiello* in view of *Bilgic*. Applicant submits that the pending dependent claim 28 contains all features of its respective independent claim 27. Because amended claim 27 should be allowed as argued hereinabove, pending dependent claim 27 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988). Furthermore, dependent claim 28 recites patentably distinct features and/or combinations of features that make them allowable, notwithstanding the allowable status of their base claim 27.

CONCLUSION

Applicant respectfully requests that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the

Examiner has any questions or comments regarding Applicant's response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Ann I. Dennen', is written over a horizontal line.

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